

R. A. M. C., in 1925, and by me in 1928. In each case, the elephant had only one tusk and both were 10' at the shoulder; in fact the first was just over 10'.

SPEED OF ELEPHANTS

Sanderson's estimate that an elephant can run at a fast shuffle at about 15 miles an hour is no exaggeration, and was supported recently by writers (mostly referring to African Elephants) in the *Field*. Personally I consider from my own experience that an Indian Elephant when 'all out' can travel quite 20 miles an hour. I do not think any 'mahout' can make an elephant travel as fast as one in full charge, or in full terrified flight. I once saw a pair of elephants cross a grassy flat, and their speed over this stretch of about 300 yards must have been nearly as good as that of a race-horse.

R. C. MORRIS.

HONNAMETTI ESTATE,
ATTIKAN P. O., via MYSORE,
June 10, 1930.

VII.—ON DISTINGUISHING BETWEEN MALES AND FEMALES AND OTHER CONTROVERSIAL MATTERS PERTAINING TO THE GAUR (*BIBOS GAURUS*)

A writer in a sporting journal recently wrote that a bison (gaur) has no dewlap. He was quite rightly contradicted by another correspondent who stated that bison do possess dewlaps. Most sportsmen who have had any experience with gaur will agree that the dewlap in a bison varies greatly, ranging from a large one to none at all.

It is curious to read the varied dicta expressed by authors on matters such as these and laid down by them as facts. Take for instance the subject of the colour of the gaur's eyes which have been described incorrectly by many well-known sportsmen and naturalists, including the late Mr. G. P. Sanderson. The description of the gaur's eyes as given by most authors applies to the colour of the eyes after death and not in the live animal.

To turn back to the subject of bison, and the views expressed on them by various authors, I think that J. W. Best in his '*Indian Shikar Notes*' makes a great mistake when he says '. . . , the cows are very difficult to distinguish from bulls; in some cases, however, the cows are lighter and even dun-coloured, and their horns are smaller and curved more inwards than those of the bulls. These are, however, no sure guides, and, unless absolutely certain that he is aiming at the bull, a sportsman has no business to press trigger.' This book was, I think, originally written for novices and, as such, I consider that a greater error could not be made than to say that a bison cow is difficult to distinguish from the bull. I

think this is an extraordinary statement to make for a *shootable* bull bison is as different from a cow as a fine stag sambhur is from a small brocket, and a young sportsman should be told that unless he sees such a bison, of a bigger build, darker colour, and heavier in horn, than nearly every other member of the herd, he should not shoot. I add in the word '*nearly*' as it is quite possible for two shootable bulls to be in a large herd. I should say that in *all cases* cows are lighter than a good bull, and a cow's horns are certainly smaller in *every* case than those of a shootable bull; nor is the dorsal ridge in a cow nearly so well formed.

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[The presence or absence of a dewlap in the gaur is a character which varies with individuals. All stages of development may be observed. It is very pronounced in some animals and scarcely noticeable in others. The colouring of the gaur's eye has again been the subject of a controversy—some maintain the eye is blue and others that it is brown. The fact is that the eye is blue in certain lights and brown in others. Everything depends on the angle of observation. In his note on the colouration of the gaur's eye (*Journal, Bom. Nat. Hist. Soc.*, vol. xxxi, p. 220), Mr. Dunbar Brander explains that the blue colouration which the eye exhibits in certain lights is due to the fact that the basal portion of the choroid membrane behind the eye is blue. The blue showing through the transparent cornea may give, at certain angles, the impression that the whole eye is blue. The iris, the conjunctiva and the greater part of the choroid membrane is however brown, so that in certain lights again the eye appears to be brown.—Eds.]

VIII.—VIGILS AT WATERHOLES

On Jan. 6, 1929, at camp Ghartal, six miles from the railway station of Warghoda in the Central Provinces, my shikari brought in the news that he had seen the fresh pug of a tiger at a waterhole in the dried-up bed of a stream about half a mile from camp, and so I decided to sit up over this in the evening.

On reaching the spot indicated I found that there were two waterholes about 80 yds. apart, and besides the tiger spoor, also those of sambhur, pig, and peafowl, so I concluded that this was the drinking ground for very near all the game in the vicinity.

I took up a central position amongst some scrub under a stunted tree at 4 p. m. and patiently awaited developments. The first denizen of the jungle to arrive was a pig who nosed about in the slush and then walked away down the river-bed towards the cotton fields. After this I suddenly beheld two quivering ears and a Sambhur stag with his hind and fawn came in to the scene. The